

Abstract

A technique wherein the number and position of a quantization parameter node is determined in response to the quantization parameters and a preselected error. The size of scene graph and the corresponding amount of memory required to store the scene graph can be reduced by selective placement of quantization parameter nodes in a scene graph. The scene graph is traversed depth first to establish an order and then traversed in reverse. At each node, a calculation relating to (1) the relative cost of inserting a quantization parameter node and (2) the relative savings that result from insertion of a quantization node is performed. Quantization parameter nodes are selectively placed in response to a result of these calculations. The maximum degree of acceptable error value is chosen for each quantization type. This error value limits the number of quantization parameter nodes that can be placed in a scene graph.